

ship and the Society a specimen of the encaustic upon paper, being a bird drawn by Mr. George Edwards, a fellow of this Society, on paper prepared with a ground of whitening and fish-glew, painted with water colours, and then the wax, &c. burned in. This will roll up as easily as common paper, without cracking the varnish. There are also two landshapes, painted by a young lady, after the same manner, on wood. These will fully evince all I advanced in that paper.

I am, my Lord, with the greatest respect,

Your Lordship's most humble Servant,

Budge-row,
April 5, 1759.

Josiah Colebrooke.

X. An Account of a particular Species of Cocon, or Silk-pod, from America. By the Reverend Samuel Pullet, M. A.

Read Mar. 8, 1759. **H**AVING lately seen the aurelia of a particular species of caterpillar, I judged, from its texture and consistence, that there might be procured from it a silk not inferior to that of the common silk-worm in its quality, and in its quantity much superior. I have made some experiments on this new species of silk-pod, which strengthen this opinion.

This pod is about three inches and a quarter in length, and above one inch in diameter; its outward form not
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so regular an oval as that of the common silk-worm; its consistence somewhat like that of a dried bladder, when not fully blown; its colour of a reddish brown; its whole weight 21 grains.

Upon cutting open this outer integument, there appeared in the inside a pod completely oval, as that of the silk-worm. It was covered with some floss-silk, by which it was connected to the outer coat, being of the same colour. Its length was two inches; its diameter nearly one inch; and its weight nine grains.

The pod could not be easily unwinded, because it was perforated by the moth: but, upon putting it in hot water, I reeled off so much as sufficed to form a judgment of the strength and staple of its silk.

The single thread winded off the pod in the same manner as that of the common silk-worm; seeming in all respects as fine, and as tough. I doubled this thread so often as to contain twenty in thickness; and the compound thread was as smooth, as elastic, and as glossy, as that of the common silk-worm. I tried what weight it would bear; and it bore fifteen ounces and a half, and broke with somewhat less than sixteen, upon several trials. I then tried a thread of the common silk-worm, which was also composed of twenty (in thickness it rather exceeded the other); and it broke always with fifteen ounces.

I boiled a part of the *cocoon* in water, for the space of four hours, that I might know whether it was composed of a gum in any sort mucilaginous;
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and I found that it was as indissoluble as that of the common silk-worm.

The common silk-pod, with all its floss, weighs usually but three grains: and here is a pod which weighs seven times as much. If the outer coat, which weighed twelve grains, were all to be used only as floss-silk, there remain nine grains, capable of being reeled; which is above three times as much as can be reeled from the common *cocoon*. But I am of opinion, that when the pod is fresh, and not hardened by age, the whole outer coat may be reeled off: for the pod on which I made these trials was seven or eight years old.

Upon enquiry, I have found that the moth of this pod is called the *Isinglass* by Marian. It is a very large moth, being five inches from the tip of each wing extended. It differs from the silk-moth, in that it has a proboscis; which intimates that it feeds in its papilio state, whereas the silk-moth never eats.

The caterpillar which produces this pod is a native of America. It was found in Pennsylvania: the pod was fixed to the small branch of a tree, which seemed to be either of the crab or hawthorn species.

The leaf of the tree had also helped to support the pod; for the mark of its ribs was apparent on the surface of the pod.

I do not conceive that it will be at all difficult to find out the caterpillar, or the tree it feeds on; or to reel such a quantity of the silk as shall, when woven into ribband, more fully demonstrate whether it be of that value which I judge it. For by

comparing it with the *cocoon* of the wild Chinese silk-worm, from which an excellent species of silk is made, I have no doubt of its being the same species; and would be glad if, by this memorial, I could induce the people of America to make trial of it.

Samuel Pullein.